

REMARKS

This Application has been carefully reviewed in light of the Final Office Action electronically delivered August 20, 2007. In order to advance prosecution of this case, Applicants amend Claims 12, 14, and 23. Applicants previously canceled Claims 2-3, 6-7, and 18-19 without prejudice or disclaimer. Applicants respectfully request reconsideration and favorable action in this case.

Section 101 Rejections

Claims 12-16 and 20 are rejected under 35 U.S.C. § 101 for allegedly being directed to non-statutory subject matter. Applicants respectfully traverse this rejection. Nonetheless, for purposes of advancing prosecution, Applicants amend Claims 12 and 14, thereby obviating the Examiner's rejection.

Section 103 Rejections

Claims 1, 4, 10-16, 21 and 22 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 6,192,512 issued to Chess ("Chess") in view of U.S. Patent No. 5,389,196 issued to Chambers ("Chambers"). Claim 1 recites:

A method of detecting viral code in subject files, comprising:
creating an artificial memory region spanning one or more components
of the operating system;
emulating execution of at least a portion of computer executable code
in a subject file;
monitoring operating system calls by the emulated computer
executable code to detect an attempt by the emulated computer executable
code to access the artificial memory region; and
determining based on the attempt to access the artificial memory
region that the emulated computer executable code is viral.

Applicants respectfully note that *Chess* and *Chambers* both alone and in combination, fail to disclose, teach, or suggest every element of Claim 1. For example, the proposed *Chess-Chambers* combination fails to disclose, "monitoring operating system calls by the emulated computer executable code to detect an attempt by the emulated computer executable code to access the artificial memory region" as recited by Claim 1. Thus, the proposed *Chess-Chambers* combination fails to disclose, teach, or suggest every element of Claim 1.

More specifically, as the Examiner concedes *Chess* individually fails to “disclose monitoring operating system calls by the emulated computer executable code to detect an attempt to access the artificial memory.” *Office Action*, p. 4. Furthermore, combining *Chess* with *Chambers* fails to remedy this omission as *Chambers* also fails to disclose this element of Claim 1. In particular, the portion of *Chambers* referenced by the Examiner in addressing this element states only that the described monitor program “can be executed explicitly by the user with a designated target program, or in alternative embodiments can be executed automatically whenever an operating system call is placed to execute a program.” *Chambers*, col. 6, ll. 64-68. Thus, the cited portion of *Chambers* indicates only that the described monitoring program is *executed* whenever an operating system call is placed to execute a target program. While this target program may then be emulated to detect viral behavior (*Chambers*, Abstract), the cited portion of *Chambers* does not disclose “monitoring operating system calls *by the emulated computer executable code . . .*” (emphasis added). Thus, the proposed *Chess-Chambers* combination fails to disclose “monitoring operating system calls by the emulated computer executable code to detect an attempt by the emulated computer executable code to access the artificial memory region” as required by Claim 1.

In addition, the proposed *Chess-Chambers* combination is improper. Applicants respectfully note that, for an obviousness rejection to be appropriate, the Examiner must “identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does.” *KSR Intern. Co. v. Teleflex Inc.*, 127 S.Ct. 1727, 1742. (2007). “[A] patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art.” *Id.* Applicants respectfully submit that the Examiner’s explanation for combining the cited references fails to satisfy this requirement.

In particular, the Examiner indicates that the motivation for this combination “would have been to detect viral activity and report the status of all operating system requests performed by the program.” *Office Action*, p. 4. Nonetheless, the system of *Chambers* on its own provides this functionality. *See Chambers*, col. 7, ll. 55-57; Abstract. Thus, a desire to “detect viral activity and report the status of all operating system requests performed by the program” is insufficient motivation for combining the teachings of *Chess* and *Chambers*, as *Chess* on its own provides this functionality. As a result, the Examiner has not identified a

reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the Examiner proposes. Consequently, the proposed *Chess-Chambers* combination is improper for at least these reasons.

As a result, the proposed *Chess-Chambers* combination fails to disclose, teach, or suggest every element of Claim 1. Moreover, the proposed *Chess-Chambers* combination is improper. Claim 1 is thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claim 1 and its dependents.

Although of differing scope from Claim 1, independent Claims 10-12 and 14 include elements that, for reasons substantially similar to those discussed with respect to Claim 1, are not disclosed by *Chess*. Claims 10-12 and 14 are thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 10-12 and 14, and their respective dependents.

Claims 8, 9, 20 and 23 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Chess* and *Chambers* in view of U.S. Patent No. 5,974,549 issued to Golan (“*Golan*”). Claims 8, 9, and 23 depend from Claim 1, while Claim 20 depends from Claim 14. Claims 1 and 14 have been shown above to be allowable. Claims 8, 9, 20, and 23 are thus allowable for at least these reasons. Applicants respectfully request reconsideration and allowance of Claims 8, 9, 20, and 23.

In addition, several of the dependents of Claims 1, 10-12, and 14 include additional elements that are not disclosed by the cited references. As one example, Claim 23 recites:

The method of claim 1, further comprising:
monitoring access by the emulated computer executable code to
dynamically linked functions; and
determining based on attempted access to dynamically linked functions
that the emulated computer executable code is viral.

Chess, *Chambers*, and *Golan*, both alone and in combination, fail to disclose every element of Claim 23. For example, the proposed *Chess-Chambers-Golan* combination fails to disclose “determining based on attempted access to dynamically linked functions that the emulated computer executable code is viral.” The portion of *Golan* referenced by the Examiner in addressing this element indicates only that the described security monitor “can be implemented as a Windows Dynamic Link Library (DLL)” and that “a software component can only breach security by calling a system call termed an API call.” *Golan*, col. 6, ll. 7-9; col. 5, ll. 38-41. The cited portion does not indicate that the system of *Golan*

“determin[es] based on attempted access to dynamically linked functions that the emulated computer executable code is viral.” Thus, the proposed *Chess-Chambers-Golan* combination fails to disclose “determining based on attempted access to dynamically linked functions that the emulated computer executable code is viral” as required by Claim 23.

As a result, the proposed *Chess-Chambers-Golan* combination fails to disclose additional elements of Claim 23. Claim 23 is thus allowable for at least this additional reason. Applicants respectfully request reconsideration and allowance of Claim 23.

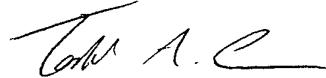
Conclusions

Applicants have made an earnest attempt to place this case in condition for allowance. For the foregoing reasons, and for other reasons clearly apparent, Applicants respectfully request full allowance of all pending Claims. If the Examiner feels that a telephone conference or an interview would advance prosecution of this Application in any manner, the undersigned attorney for Applicants stands ready to conduct such a conference at the convenience of the Examiner.

The Commissioner is hereby authorized to charge the \$810.00 RCE filing fee and any other required fees or to credit any overpayments to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

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